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Surveying in Texas Years Ago

(Continued)
Paul McCombs

Mr. McComb's experiences were too many to be briefed into one article. The following is a continuation of those in last month's issue.

"ON another trip to the end of the line, I took dinner at the construction camp, where a fine old Irish dame was feeding the 'gang'. It was her custom to say to each man: 'Will ye heve ca'he or will ye heve tay?' Of course all the gang said 'Coffee'. On this occasion one of the men thought to be funny so he said: 'I will have tea'. The old lady smiled kindly at him and remarked: 'You're a liar. Ye'll heve ca'he; there's no tay'."

"One 'gent' who lived on those prairies knew no fear; his name was 'Lobo', a large fierce wolf. Out hunting one day on the eastern edge of the Diabolo Mountains, I saw an antelope running directly toward us. I hid behind a bush and when he came within a hundred feet, I dropped him with a single shot. As I rose to go to my game a great Lobo cleared the brush and landed on the antelope. When he saw me his hair rose, and with a growl he started toward us.

"I gave him a bullet that broke his spine and saved my life. With both legs out of commission, however, that brute crawled toward me, while I pumped bullets into him until my eight loads were exhausted; then I 'clubbed' my Winchester and prepared for a hand-to-hand fight. Within fifteen feet of me, he sank to the ground and expired.

"This experience with a brave ani-

mal taught me a lesson. When I came face to face with a mountain lion—with only fifteen feet of canyon between us—I politely bowed and withdrew, to my horse, at the foot of the hill, and went to camp."

"As we went through the great

(Continued on page 4)

Honored by Service

WHEN the bills for dues for the year 1929 were sent out from the office of the Society, fifty-two members received notification that in the future they would be exempt from all payment of dues.

In examining the list of names of those who this year become exempt under the terms of the Constitution, it is a pleasure to note the service which they have given to the Society in the years since they became members.

Included are five men who have been Directors, each for the regular term of three years—a total of fifteen years in guiding the activities of the Society. Two have held the office of Treasurer, the time of both adding up to ten years in that office. Another, who held no elective office, was, for five years, Assistant to the Secretary. The aggregate time of active work in the interest of the Society is thus thirty years.

This brief analysis has taken no account of the larger number who from time to time have been appointed to serve on various Committees or have shown their loyalty to the Society in many other ways.

Annual Meeting

THE Annual Meeting dates are January 16, 17, and 18. The general outline of the meeting appears in Part I of this issue of Proceedings. The program, with its details as to topics, speakers, and events, may be already in hand. There remains now, therefore, little to be said except on one item, the Railroad Certificate Plan.

The certificate plan has worked successfully four times, at Washington last spring and for three successive years at the Annual Meeting, but there is no certainty that it will work again. Only 250 certificates are needed, but the margin is by no means as great as might be expected with an attendance of approximately 2,000.

Of course, many residents of New York City and its suburbs are among the 2,000, and these need no tickets; but of the many attending from a distance—and some of them from great distances—too many fail to secure certificates, and others fail to turn them in.

The success of the plan means much to many. That might be the slogan. "It means much to many!" So have it on your mind. Get a certificate for every member of your family, whether it will be needed or not, and turn it in promptly. The agent will not begin to validate until 250 are deposited.

It means much to many!—several thousand dollars in the aggregate.

Around the Circuit

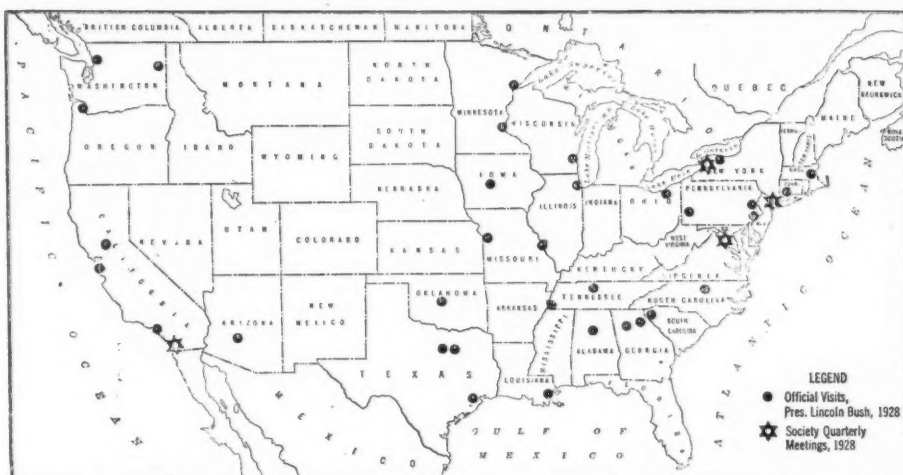
SELDOM will it prove practicable for a President to devote so much time to affairs of the Society as has President Bush during the past year.

In addition to being in frequent communication with the Society of-

fice, to attending conferences and committee meetings, to conducting the Board Meetings and affairs of the Society at the Annual and Quarterly Meetings, he has found it practicable to visit Local Sections, Student Chapters, and gatherings of members in 35 cities.

The stars and dots on the accompanying map indicate the extent to which the country has been covered. Student Chapter visitations in the same or near-by cities are not shown.

Annual Meeting
January 16, 17, 18



A Word Picture

ALMOST every day a visitor from "out of town" comes to the Headquarters Office of the Society, and says he just wants to see what the place looks like. He has been a member of the Society for a number of years, but has never had a chance before to call.

The rooms of the Society occupy one entire floor and parts of three others of the Engineering Societies Building, but the visitor will be directed first to the fifteenth. He steps off the elevator, and sees an attractively furnished Reading Room, supplied with magazines, both technical and popular, daily newspapers, writing materials, and a small collection of technical books. Around the walls of this room hang the portraits of the Past-Presidents, made up in uniform style.

The member introduces himself to the assistant at the desk, and is asked if he will look around at the Society's home. Opening off the Reading Room is the large Board Room, paneled in Santo Domingo mahogany. The tables and chairs are of the same beautiful wood, and the hangings and carpets are of dark green velvet. The outlook from its windows covers the Statue of Liberty, Staten Island, the North and the East Rivers, and the right quarter of the horizon for many a beautiful sunset.

Opposite the Board Room is the office of the Assistant Secretary and of that member of the staff who looks after the Technical Divisions. Also opening off this corridor is a commodious committee room which

is usually known as the "President's Room", in one corner of which is a desk for him when he is in the city.

The office of the Secretary is entered through an unmarked door near the elevator. He has his own private secretary and two other assistants especially engaged in the work of that office.

If the visitor's interest continues he is asked to step to the rear of the corridor, and look into the General Office. This busy room, approximately 5,700 sq. ft., is well supplied with both light and air, as the skyscrapers have not yet come near enough to interfere with its windows. It contains letter files, machines for addressing and stamping letters, 18 typewriters, and other equipment. Here, about 25 assistants assemble each day for their varied duties. Here, the mailing lists of the membership are kept up to date, the general correspondence is received, examined, and answered, the publications and first-class mail sent out.

Three special Departments have their quarters on the sixteenth floor. The Editorial Department, with a staff of six persons, has the job of publishing Proceedings, Transactions, and other material in various forms. The Accounting Department has four people taking care of the financial matters of the Society. The Application Department is one item which the casual visitor may never suspect exists, so quietly is its work carried through. But when he knows that more than 1,700 applications for admission and transfer have been re-

ceived in the current year, he is not surprised that three persons are constantly occupied in handling these, even before they come before the Board of Direction for action.

Although a supply of the publications is kept near at hand, to answer current demand, there must necessarily be many shelves in some other part of the building, for storage, both of back publications, and of the supplies for the general office routine. The Society has the use of two storage rooms, one on the twelfth floor and one in the basement, and the time of one assistant is entirely taken up in their supervision.

The women employees of the Society have a Rest Room on the sixteenth floor, where they may relax during the noon hour. It is furnished with wicker furniture, and hung with gay cretonne.

No visitor who is making his first tour of the building is allowed to go away without at least a brief glimpse of the Library. This is in a real sense a part of the Society's Headquarters, for a goodly proportion of its collection was formerly in the Society's Library in the building on Fifty-Seventh Street. It is now the largest and best equipped engineering library in the country, if not in the world. It belongs jointly to the four Founder Societies. Without its resources, the Society would be quite unable to render to its members the service to which they are entitled.

A visit is in order, too, to the Auditorium and the meeting-rooms on the third, fourth, and fifth floors, and if time permits one may look in on the Employment Service quarters. Then one will have seen the Society's present home and the staff engaged in carrying on its work.

Publicity

PUBLICITY for the engineer, a moot subject at present with the profession, had some light thrown upon it at the Buffalo Local Sections' Conference. Interesting and helpful matter resulted.

One weakness of the professional engineer was stated to be his inability to "sell" himself to the public, and the public press was suggested as a desirable medium. To break into it was the problem.

A member analyzed the situation as follows: He said the "story" the usual engineer prepared had no news value; it lacked human interest. Although the job or the project had great possibilities as to news value of public interest, the engineer in his account failed to develop it.

His practical suggestions were:

Avoid technical matter as much as possible.

Use simple language.

Apply a popular yardstick to statistics.

Include human incidents.

Make use of pictures.

Be brief: Tell it in a headline; re-tell it in a subhead; then state the gist of the whole story in the first paragraph.

Receive reporters cordially.

Try, try again.

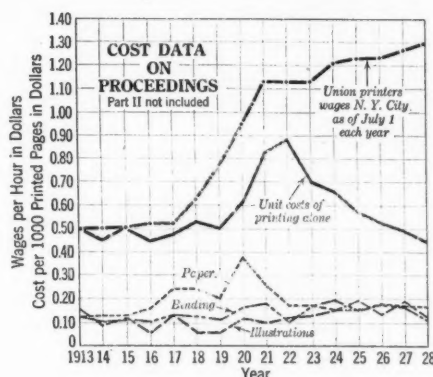
These, he said, were his rules and he had found local papers not only willing to print his articles but they had become interested in him, as a possible source of news, valuable to them and to him.

Printing Economies

A "STUDY", begun in 1922, by the Assistant Secretary, the Technical Editor, and the Office Manager (and others), has resulted in very appreciable economies.

Printers' wages began to rise during the war at a very rapid rate, with the result that the cost of printing a page of the Society's principal publications, Proceedings and Transactions, was just double in 1922 what it was in 1913. Paper and engravings also increased in cost, but the real increase in expenditure was the composition and printing items. It was looked into.

The printer's technique was studied. Questions elicited the information that this expensive operation could be eliminated by changes



of minor importance or that laborious methods could be lessened by a revision in style. The printer co-

operated most generously in offering suggestions which, if feasible, were adopted. Methods and processes were simplified and standardized. A program was developed which permitted a steady flow of material with a minimum of slack or rush times.

The result has been that although printers' wages have soared from 50 cents per hour to \$1.30 per hour the cost of 1000 printed pages in 1928 is again exactly the same figure it was fifteen years ago, 44 cents; just half the high figure of 1922. The greater number of pages in each issue has helped. So also has the larger edition, but they alone by no means would have been effective.

Miscellany

With the disaster to the *Vestris*, the Society lost a member, Wyatt Andrew Brownfield, elected an Associate Member in January, 1925.

Mr. Brownfield was Chief Engineer of the Kentucky Rock Asphalt Company with residence in Louisville, Ky. He was accompanied by Mrs. Brownfield who also was lost.

Attention of Student Chapter officials is called to an item in Part I of this Proceedings entitled, "Student Chapter Programs". Therein the printed announcement of coming events for the University of Colorado Student Chapter is commented upon at length.

Its style, its announcements with all the sidelights which they suggest, its data, should certainly be stimulating to some sorely perplexed Secretary or Student Chapter President.

On January 9, the canvass is made of the Ballot for Officers of the Society for the year 1929. One blue envelope, received early in December will not be submitted to the Tellers for inclusion in their count.

At a casual glance, it looks like the envelopes being used this year, but it bears on its face the legend, "To Be Opened at the Annual Meeting January 21, 1920." The ballot enclosed submits the name of Arthur Powell Davis for President, and, curiously enough, Dean Anson Marston, who this year has been nominated for that office, is named as the candidate for Director, in District 7.

Probably the mystery will never be solved. Did the member who was entitled to vote in 1920 carry the ballot around in his overcoat pocket until eight years had elapsed, or did the Post Office Department fall down on its job, and mislay the communication until just the time of year when it might have found its way into the current canvass?

At a recent meeting of the Student Chapter of the Society at Pennsylvania State College, it was voted to make all the members of the Faculty of the Civil Engineering Department Honorary Members of the Chapter.

A list of sixteen names has been sent in to Headquarters, including all Professors and Instructors in that Department. Some of these names are already enrolled in the membership of the Society, and others have not made application, but all are welcomed to their affiliation with the activities of the Student Chapter, and both Honorary Members and Chapter are congratulated.

The Society has been presented with an attractive replica of one of the Louvain Carillon bells, mounted on a heavy base and provided with a hand-operated tongue by which a vibrant tone may be produced that certainly will compel attention.

The bell bears the inscription, "American Society of Civil Engineers. A Memento of the Louvain University Carillon. July 4th, 1928. From Gillett & Johnston, Croydon, Eng."

Gillett and Johnston is the firm that cast and tuned the 48 bells given to Louvain University by the Engineering Societies of America in memory of those engineers of the United States who gave their lives in the Great War.

This single issue, quite by accident, contains two items dealing with the subject of writing for publication. One is directed toward technical articles, as in the Society's publications, Proceedings and Transactions, and the other toward articles intended for the public press.

The readers and ends sought are quite different and the methods of treatment outlined are similarly different. In each case, however, the measure of success is the direct effect upon the other fellow—not the author.

Surveying In Texas

(Continued from page 1)

Salt Lake flats, we saw the most wonderful 'mirages'. Standing on edge of one of those dry soda lakes, you could plainly see waves of water lapping the shore, apparently within 100 feet of you. As you advanced toward the waves they retreated, until in a short distance you would stand on a dry spot with waves beating about you on every side. It was the most complete illusion that I ever witnessed.

"At last we came to the old Gaudaloupe Salt Lakes. Into these lakes the saturated salt water rises; and, evaporating, leaves the pure salt on the bottom. Better table salt I never tasted. For thousands of years the natives of old Mexico have come to these lakes and with their old caretas—two-wheeled carts, with wooden axles and solid wooden wheels, whose creak can be heard a mile—would haul this salt way down into the interior of Mexico."

"I had an experience with Indians three years later when we were sectionalizing those lands. About 4 o'clock in the afternoon, my rear flagman said that he thought he saw a deer on the edge of the valley, so I pointed my instrument in the direction he indicated. There, sitting at the foot of a large dagger plant, was a warrior in full war paint and toggery—feathers. Standing by the plant was another; both were shading their eyes and gazing steadily at us.

"This fellow was from Georgia, and was the best shot I had in camp. I told him to drop a bullet over at the feet of those two 'gents' to let them know we saw them. When he shot, I watched the Indians. The bullet cut the dust at the feet of the sitting buck. He seemed to go straight up into the air about six feet and 'lit a-running'. The other fellow slid around the dagger and both disappeared.

"We at once quit work, got my men together, and as soon as the wagons came up, moved on up the valley about five miles and made camp—just before dark; stretched our tents and made believe that we intended to stay all night. So as soon as it got dark we broke camp, and moved at right angles straight across the valley to the hills on the opposite side, and camped in a low

depression from which we could see the skyline on all sides. We made no light, and set watch, three at a time, and changed watches every two hours—with thirteen men.

"No Indians appeared, so next morning we went back to the first camp and there saw plenty of mocasin footprints. Finding that we had moved, the Indians thought best not to follow."

January Proceedings

BY coincidence, the 1929 Proceedings start with an issue the papers of which are all more or less mathematical. The first, by Mr. H. S. Richmond, concerns "Elastic Equilibrium in the Theory of Structures". This he applies to light frames such as the bents supporting the trolley wires on electrified railroads. Another special use lies in determining the stresses induced in I-beam sections by torsion. Experts consider the method to be original, direct, and valuable.

The second paper also has immediate structural application. In his "Studies of Shear in Reinforced Concrete Beams", T. D. Mylrea, Member, gives his so-called truss analogy for determining correct spacing of bent-up bars, which should cause considerable discussion. He presents good reasons why bars should be bent diagonally across a beam instead of extending longitudinally, and be curved with extremely large radii so as to extend out into the flange of a T-beam, for instance, to provide anchorage. Those to whom this may seem extreme must read his defense of his thesis.

In the concluding paper, Professor Weston S. Evans deals with "The Graphical Solution of a Correlation Table". As engineers familiar with statistics know, a correlation table is essentially a mathematical solution for certain valuable relationships. The computations may be tedious and as such are distasteful to engineers. Instead this paper shows the way toward graphical treatment for the same results—standard deviations, means, regression lines, and the like. Examples by the old and the new methods are compared to advantage.

The current vogue for numerous comments on previous papers is emphasized in the inclusion of 71 discussions covering 24 papers. In bulk,

these far exceed the space devoted to new papers, as might be expected. Memoirs of 10 deceased members conclude the January, 1929, Proceedings.

Writer or Reader?

IN writing upon a technical subject the author should have a definite conception of what he has to communicate and of how he may best tell it—in other words, of his attitude toward his self-imposed task.

There must be something he is "trying to put across", else he has no excuse for writing. Some "thing" to put across, for personality should be far in the background, hardly visible. Of course, the writer will be in his story and no one will desire to divorce the idea from its author, but he should not inject himself into the thread of the discourse, to its detriment. He should be only the searchlight, itself almost unseen, that brings the issue into proper relation and relief.

The issue is the important thing. Maybe it is the result of a study or of research, possibly a useful "kink" in solving a difficulty; perhaps it is the sequel of a bitter experience by which some one else (at least) may profit. Whatever its nature, the author strives to present it as truthfully and as forcefully as possible. Then the question is how best to accomplish this.

Clearly it will not be by colloquial, rambling remarks. It is not to be a bed-time story, written just to be interesting. The reader will want facts, not fancies; he will ask to be informed but hardly to be amused. So at least it will be dignified.

Then it will be concise—it will contrive to transfer an idea from author to reader with the minimum of words or thoughts. Thus, it will acquire clarity and minimize the effort needed to grasp the meaning. The words will be accurate, not subject to possible misinterpretation, supplementing but not duplicating diagrams or tables.

The whole ideal treatment will be objective and not subjective. It will point outward, not inward; it will subordinate the writer and the writing, that the essence may stand forth in bold relief. And the reader will tuck away the kernel of the thought for future reference with the mental comment, "That fellow certainly used his head."

